

Claims

1. A polyacetal resin composition prepared by blending

(A) from 99.9 to 90 parts by weight of a linear polyacetal resin having a melt index of 1 to 50 g/min obtained by copolymerizing (a) 99.5 to 97.5% by weight of trioxane and (b) 0.5 to 2.5% by weight of a compound selected from the group consisting of a mono-functional cyclic ether compound and a mono-functional cyclic formal compound, with

(B) from 0.1 to 10 parts by weight of a branched or crosslinked polyacetal resin having a melt index of 0.1 to 10 g/min obtained by copolymerizing (a) 99.49 to 95.0 % by weight of trioxane, (b) 0.5 to 4.0% by weight of a compound selected from the group consisting of a mono-functional cyclic ether compound and mono-functional cyclic formal compound and (c) 0.01 to 1.0% by weight of a poly-functional glycidyl ether compound with the number of functional groups of 3 to 4, in which

the linear polyacetal resin (A) and the branched or crosslinked polyacetal resin (B) are selected so that the ratio between the melt index of the linear polyacetal resin (A) and the melt index of the branched or crosslinked polyacetal resin (B) can satisfy the relation of the following formula (1):

$$0.02 \leq MI_B / MI_A \leq 1.5 \quad (1)$$

(where MI_A is a melt index of the linear polyacetal resin (A) and MI_B is a melt index of the branched or crosslinked polyacetal resin (B)).

2. The polyacetal resin composition as defined in claim 1, wherein the melt index of the linear polyacetal resin (A), the melt index of the branched or crosslinked polyacetal resin (B) and the blending ratio of them are controlled so that the melt index of a polyacetal resin composition in which the branched or crosslinked polyacetal resin (B) is blended with the linear polyacetal resin (A) can satisfy the relation of the following formula (2) relative to the melt index of the linear polyacetal resin (A):

$$0.7 \leq MI_A / MI_{AB} \leq 1.4 \quad (2)$$

(where MI_A is a melt index of the linear polyacetal resin (A) and MI_{AB} is a melt index of the polyacetal resin composition).

3. The polyacetal resin composition as defined in claim 1 or 2, wherein the poly-functional glycidyl ether compound (c) is at least one selected from the group consisting of trimethylol propane triglycidyl ether, glycerol triglycidyl ether and pentaerythritol tetraglycidyl ether.

4. The polyacetal resin composition as defined in claim 1 or 2, wherein the compound (b) is at least material selected from the group consisting of ethylene oxide, 1,3-dioxolane, 1,4-butanediol formal and diethylene glycol formal.